UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,829	03/30/2005	Michael John Betts	TS6346 US	8909
7590 08/28/2007 Rachael Stiegel			EXAMINER	
Shell Oil Company			THOMPSON, KENNETH L	
Intellectual Property PO Box 2463			ART UNIT	PAPER NUMBER
Houston, TX 77252-2463			3672	
				· · · · · · · · · · · · · · · · · · ·
			MAIL DATE	DELIVERY MODE
			08/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/506,829	BETTS ET AL.
Office Action Summary	Examiner	Art Unit
	Kenneth Thompson	3672
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet with the	correspondence address
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING D. - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period of Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tinuity will apply and will expire SIX (6) MONTHS from the cause the application to become ABANDONE	N. mely filed the mailing date of this communication. ED (35 U.S.C. § 133).
Status		
1) Responsive to communication(s) filed on <u>06 July</u> 2a) This action is FINAL . 2b) This 3) Since this application is in condition for alloware closed in accordance with the practice under Expression in the practice of t	action is non-final. nce except for formal matters, pre	
Disposition of Claims		
 4) Claim(s) 1-4,6-17 and 19-23 is/are pending in 4a) Of the above claim(s) is/are withdray 5) Claim(s) 1-4 and 6-15 is/are allowed. 6) Claim(s) 16 is/are rejected. 7) Claim(s) 17 and 19-23 is/are objected to. 8) Claim(s) are subject to restriction and/or 	wn from consideration.	
Application Papers		
9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) acc Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Example 11.	epted or b) objected to by the drawing(s) be held in abeyance. Se tion is required if the drawing(s) is ob	e 37 CFR 1.85(a). ojected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
a) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority application from the International Burea * See the attached detailed Office action for a list	is have been received. Is have been received in Applicative documents have been received in CPCT Rule 17.2(a)).	ion No ed in this National Stage
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date	4) Interview Summan Paper No(s)/Mail D 5) Notice of Informal 6) Other:	Date

Art Unit: 3672

DETAILED ACTION

Claim Objections

Claims 3 and 6 objected to because of the following informalities:

The recitation "the system lubricating fluid" should be changed to "a system lubricating fluid".

Claim 6 should be amended to depend from claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 16 is rejected under 35 U.S.C. 102(b) as being anticipated by Southworth, Jr., U.S. 3.465,834.

Southworth Jr. discloses a steerable penetration head (10; col. 3, lines 7-10) having a propulsion means (col. 3, lines 4-6) including a hammer and anvil shock generator.

Allowable Subject Matter

Claims 1-4 and 6-15 are allowed.

Art Unit: 3672

Claims 17 and 19-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Thompson whose telephone number is 571 272-7037. The examiner can normally be reached on 7:00 am - 4:30 pm.

Application/Control Number: 10/506,829 Page 4

Art Unit: 3672

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

20 August 2007

Kenneth Thompson Primary Examiner Art Unit 3672